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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,729	07/25/2003	Vipul Patel	M4065.0912/P912	9706

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EXAMINER

NGUYEN, DANG T

ART UNIT	PAPER NUMBER
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2824

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

EV

Office Action Summary	Application No. 10/626,729	Applicant(s) PATEL, VIPUL	
	Examiner Dang T. Nguyen	Art Unit 2824	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 18-23, 28-30 and 35-37 is/are pending in the application.
4a) Of the above claim(s) 8-17, 24-27, 31-34 and 38-41 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-7, 18-23, 28-30 and 35-37 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☒ Claim(s) 1-41 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 25 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>Search history</u> . |

DETAILED ACTION

1. This action is responsive to applicant's amendment filed on 2/10/05. Claims 1 - 7, 18 - 23, 28 - 30, and 35 - 37 are pending in this application. Claims 8 - 17, 24 - 27, 31 - 34, and 38 - 41 have been withdrawn. Claims 1, 5, 18, 21, 28, and 35 have been amended.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-7, 18-19, 21-23, 28-30, and 35-37 are rejected under 35

U.S.C. 102(b) as being anticipated by Gillingham et al., U.S. Pub. No. US 2002/0015348 A1 – Pub. Date: Feb. 7, 2002.

Regarding independent claims 1 and 5, Fig. 2 Gillingham discloses a content addressable memory (CAM) cell comprising: a matchline [ML]; a wordline [WL]; and a shieldline [TL] positioned between said matchline [ML] and said wordline [WL] for receiving electrical noise from said matchline (Fig. 5 paragraph [0040] lines 10-12) (*ML and TL are coupled together, so TL receives electrical noise from the matchline*), said shieldline being electrical separated from the matchline (Fig. 2 clearly discloses the

shieldline TL is electrical separate from the matchline ML by the pairs of transistors 102 and 104).

Regarding dependent claim 2, Gillingham discloses wherein said shieldline is coupled to a ground potential (page 1, paragraph [0006] lines 3-4).

Regarding dependent claim 3, Gillingham does not explicitly disclose the shieldline is made of metal. However, conductive or metal of the shieldline is inherent to the tail line [TL] of Gillingham (Figs. 2 and 5) that Tail line [TL] is conducting the currents of Cell 1 and Cell 2 (page 4, paragraph [0039] lines 16-17). Therefore, the tail line [TL] must be formed by metal or conductive material.

Regarding dependent claim 6, Gillingham does not explicitly disclose the shielding means is a conductive material. However, conductive or metal of the shieldline is inherent to the tail line [TL] of Gillingham (Figs. 2 and 5) that tail line [TL] is conducting the currents of Cell 1 and Cell 2 (page 4, paragraph [0039] lines 16-17). Therefore the tail line [TL] means is a conductive material.

Regarding dependent claim 7, Gillingham discloses wherein said shielding means is coupled to a ground potential (page 1, paragraph [0006] lines 3-4).

Regarding independent claims 18 and 21, Gillingham discloses an integrated circuit, comprising: a content addressable memory (CAM) cell (Fig. 5), comprising: a matchline (Fig. 2 [ML]); a wordline (Fig. 2 [WL]); and a shieldline (Fig. 2 [TL]) positioned between said matchline and said wordline for receiving electrical noise from said matchline (Fig. 2 shows a schematic of a DRAM based CAM cell [*while a DRAM cell is more sensitive to noise*]. Therefore, it is desirable to reduce the effect of spurious noise in the circuitry

of the DRAM CAM array] and see Fig. 5 paragraph [0040] lines 10-12) (ML and TL are coupled together, so TL receives electrical noise from the matchline), said shieldline being electrical separated from the matchline (Fig. 2 clearly discloses the shieldline TL is electrical separate from the matchline ML by the pairs of transistors 102 and 104, because 102 and 104 are electrical components).

Regarding dependent claim 19, Gillingham discloses wherein said shieldline is coupled to a ground potential (page 1, paragraph [0006] lines 3-4).

Regarding dependent claim 22, Gillingham does not explicitly disclose the shielding means is a conductive material. However, conductive or metal of the shieldline is inherent to the tail line [TL] of Gillingham (Figs. 2 and 5) that tail line [TL] is conducting the currents of Cell 1 and Cell 2 (page 4, paragraph [0039] lines 16-17). Therefore the tail line [TL] means is a conductive material.

Regarding dependent claim 23, Gillingham discloses wherein said shielding means is coupled to a ground potential (page 1, paragraph [0006] lines 3-4).

Regarding independent claim 28, Gillingham discloses a router, comprising: a content addressable memory (CAM) cell (Fig. 5), comprising: a wordline (Fig. 2 [WL]); a matchline (Fig. 2 [ML]); and shielding (Fig. 2 [TL]) means for shielding said wordline from noise from said matchline (*Fig. 2 for disclosing the tail line [TL] is typically connect to ground and shield between the wordline and the matchline to reduces the transmission of noise from the matchline to the wordline*) (Fig. 2 clearly discloses the shieldline TL is electrical separate from the matchline ML by the pairs of transistors 102 and 104, because 102 and 104 are electrical components).

Regarding dependent claim 29, Gillingham does not explicitly disclose the shielding means is a conductive material. However, conductive or metal of the shieldline is inherent to the tail line [TL] of Gillingham (Figs. 2 and 5) that tail line [TL] is conducting the currents of Cell 1 and Cell 2 (page 4, paragraph [0039] lines 16-17). Therefore the tail line [TL] means is a conductive material.

Regarding dependent claim 30, Gillingham discloses wherein said shielding means is coupled to a ground potential (page 1, paragraph [0006] lines 3-4).

Regarding independent claim 35, Gillingham discloses a processor system, comprising: a processor (Page 1, paragraph [0002]); and a content addressable memory (CAM) cell (Fig. 5), comprising: a wordline (Fig. 2 [WL]); a matchline (Fig. 2 [ML]); and shielding (Fig. 2 [TL]) means for shielding said wordline from noise from said matchline (*Fig. 2 for disclosing the tail line [TL] is typically connect to ground and shield between the wordline and the matchline to reduces the transmission of noise from the matchline to the wordline*), (Fig. 2 clearly discloses the shieldline TL is electrical separate from the matchline ML by the pairs of transistors 102 and 104, because 102 and 104 are electrical components).

Regarding dependent claim 36, Gillingham does not explicitly disclose the shielding means is a conductive material. However, conductive or metal of the shieldline is inherent to the tail line [TL] of Gillingham (Figs. 2 and 5) that tail line [TL] is conducting the currents of Cell 1 and Cell 2 (page 4, paragraph [0039] lines 16-17). Therefore, the tail line [TL] means is a conductive material.

Regarding dependent claim 37, Gillingham discloses wherein said shielding means is coupled to a ground potential (page 1, paragraph [0006] lines 3-4).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gillingham et al., U.S. Pub. No. US 2002/0015348 A1 – Pub. Date (02/7/02).

Regarding dependent claims 4 and 20, Gillingham as applied to claims 1 and 18 above disclosed every aspect of applicant's claimed invention except for the shieldline is made of copper. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the shieldline is formed by copper, since it has been held to be within the general skill of a worker in the art to select a known material such as gold, copper, etc... on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Response to Arguments

4. Applicant's arguments filed on 2/10/05 have been fully considered but they are not persuasive.

With respect to claims 1, 5, 18, 21, 28 and 35, under Remarks applicant argued: the "shieldline TL" of Gillinghan does not positioned between the matchline and the wordline; and the "shieldline TL" is being electrically separate from the matchline. Examiner respectfully disagrees from the following:

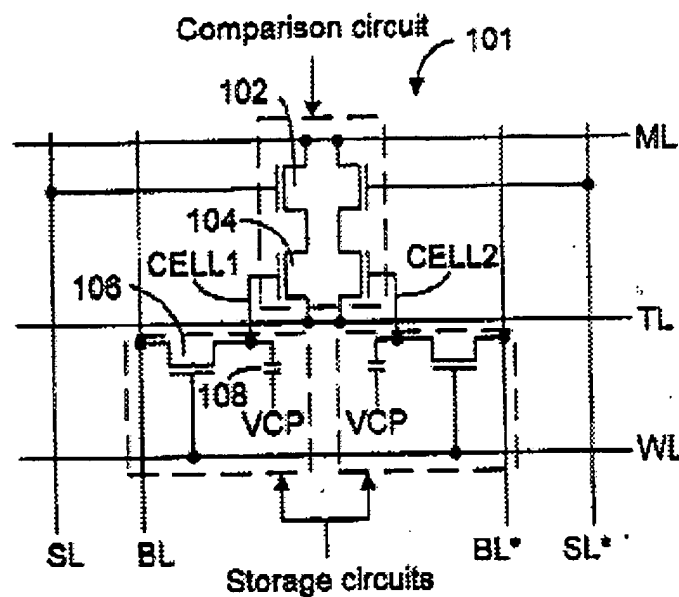


Fig. 2

Fig. 2 of Gillinghan clearly discloses the shieldline TL is position between the matline ML and the wordline WL, and the shieldline TL is separate from the matchline ML by the electrical components 102 and 104; in other words, the electrical components 102 and 104 are using to disconnect/separate or connect the shieldline TL from matchline ML. Therefore, Gillinghan clearly discloses every aspect of claim invention.

Prior art

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chadwick et al. Pub. No.: US 2003/0002313 A1 Pub. Date: Jan. 2, 2003

Foss et al. Pub. No.: US 2002/0141218 A1 Pub. Date: Oct. 3, 2002

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Contact Information

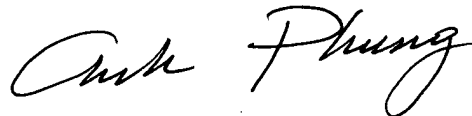
7. Any inquiry concerning this communication from the examiner should be directed to Dang Nguyen, who can be reached by telephone at (571) 272-1955. Normal contact times are M-F, 8:00 AM - 4:30 PM.

Upon an unsuccessful attempt to contact the examiner, the examiner's supervisor, Richard Elms, may be reached at (571) 272-1869.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist, whose telephone number is (703) 305-3900. The faxed phone number for organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the Status of an application may be obtained from the patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or EBC@uspto.gov.

Dang Nguyen 4/15/05



ANH PHUNG
PRIMARY EXAMINER